

was reached for elderly IRPC post-TUR patients with a moderate IPSS. Neoadjuvant AD 3 months + concomitant external RT was the most controversial option (SD 1.0)

Conclusions. Meeting the criteria for IRPC does not mean that treatment should be standardized. Until studies providing clear evidence on this issue are published, these expert recommendations could serve as potential guidelines.

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Androgen deprivation therapy and cardiovascular risk in patients with prostate cancer

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Introduction. Recent reports of an association between androgen deprivation therapy (ADT) and increased risk of cardiovascular events have generated debate on ADT in patients with cardiovascular comorbidities.

Objectives. To describe options recommended by radiation oncologists in the most controversial aspects of treating PC with ADT in patients with cardiovascular risk factors.

Methods. The ÁGORA project involved 18 oncologists and comprised 4 phases: (1) selection by a panel of experts of the most controversial aspects in the administration of ADT in patients with a cardiovascular history and PC; (2) selection of the most relevant published scientific articles on this subject; (3) preparation of case reports and associated questionnaires; (4) critical reading of the articles and discussion of the case reports at regional meetings. Therapeutic procedures were classified as “highly recommendable”, “recommendable in some cases”, or “not recommendable/not applicable”. The dispersion of the responses was considered to indicate consensus (SD < 0.15) or high variability (SD > 0.85).

Results. The panel recommended that, in the absence of solid clinical evidence, patients with high- and very high-risk PC and a history of severe cardiovascular disease should receive aLHRH in preference to other options. The panel also considered ADT with aLHRH for 24–36 months combined with RT to be highly recommendable. In patients with intermediate-risk PC and a history of cardiovascular disease, the panel considered ADT with aLHRH for 6–8 months in combination with RT and not administering ADT to be highly recommendable approaches.

Conclusions. Specific studies are necessary to investigate the impact of ADT on cardiovascular mortality in patients who benefit most from adjuvant ADT in terms of survival. In the absence of such studies, the experts believe that published clinical evidence on the proven therapeutic benefits of ADT should override concerns about potential cardiovascular toxicity.

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Benchmark of a patient based prostate atlas for automated contouring

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Introduction. Up to now, commercial atlases for automatic segmentation have been employed successfully in brain and head & neck sites, for radiation therapy. To our knowledge no prostate atlas has been analyzed. Our objective is to show to what extent prostate atlas can be used.

Methods. We used an evaluation version of Mimvista, that allows automatic contouring of volumes, by means of a library of 30 patients. For each patient, rectum, bladder, prostate and seminal vesicles were handmade defined, whose definition was chosen beforehand. For 10 patients, not included in the library, these organs were delineated by the radiation oncologist. MimVista software uses mutual information matching metric and deformation algorithms to fit the closest patient in the library to the target patient, and then copy the contours. We check the accuracy visually, by an average distance between the compared contours, and a conformality index (ratio of volume of intersection to manual delineated volume)

Results. Despite gas pockets, prostate and rectum scored better than the rest, due to differences in filling and use of stark contrast (bladder) and due to the small volume (seminal vesicles). With mild contrast bladder scored at best (2.5 mm distance difference). Yet, for other organs, the average distance between contours could not be lowered under 3 mm (5 mm average). The time required for automatic contouring was less than 1 min.